

driver of the trailing vehicle. This is a clear and important distinction that completely alters the utility of this element, and is analogous to the difference between a dashboard warning light and a brake light.

Applicant, in an attempt to use terminology consistent with the field, has likely chosen the wrong term for this element of the invention. Upon further review of the prior art, the term display is most often used for elements where there is direct human interface – as in Iihoshi's display module using human I/F. Perhaps the term 'brake warning light' or 'supplemental brake light' would more accurately describe the utility of this element, and if examiner finds the arguments of these remarks valid, then a recommendation might be made as part of the applicant's conditional request for constructive assistance.

With a corrected terminology, is it more clearly understood that the applicant's invention places a 'supplemental brake light' on the host vehicle to be viewed the trailing, whereas the patent of Iihoshi et al has no such element expressly described.

Other very significant differences in objective, in function, and in configuration between Iihoshi's patent and applicant's invention should be pointed out for they demonstrate how applicant's invention would not have been inherent anticipated by the patent of Iihoshi et al.

1a. Objective: As stated by Iihoshi et al in their summary of invention: "... object of the present invention is to provide a vehicle platoon control system which is capable of stably controlling a platoon of vehicles...". This involves very sophisticated technology with intervehicular communications, road markers, road sensors, automated vehicle braking and steering control and multiple CPU's in the numerous platoon vehicles which must function at a near perfect level otherwise the device will fail. This patent, assigned to Honda et al, is one of a plethora of complex inventions (see 5,369,591; 5,420,794; 5,680,0122; 5,777,451; 5,780,119 at

least) with the object of linking vehicles for safer driving. Applicant's invention can be installed by a clever mechanic into a single automobile.

1b. Function: Iihoshi's display is linked via radio to other vehicles within a co-moving 'platoon' of vehicles – it provides no information or utility without its link to the CPU's of the other vehicles within the platoon. The display of applicant's invention operates completely independent of any other vehicles or mechanisms beyond that incorporated into the host vehicle itself.

1c. Configuration: Under operation, a driver utilizing the display of Iihoshi's invention is viewing the display module placed directly on that same vehicle (like a dashboard speedometer) – it is not intended nor configured to serve as a visible display to the driver of a **trailing** vehicle. A driver a host vehicle incorporating the applicant's invention does not utilize the display at all, and indeed as a 'supplemental brake light', it would not even be visible to such a driver.

In summary, the patent of Iihoshi et al, does not expressly or inherently describe the most essential element of applicant's patent, and accordingly, could not have anticipated it.

The Office Action also makes reference to the teachings of a patent by Wilson (US 5,504,472). Applicant's invention is could not have been learned or derived from what the patent of Wilson teaches us for the following reasons:

- 1. The deceleration warning device of Wilson is a device that must be activated by an action – specifically, the action of the driver of the host vehicle.** This is made clear in Wilson's patent wherein he states in the Detailed Description Of The Preferred Embodiment: "As the driver (not shown) of the vehicle brakes..." and in numerous other places. The warning lights of applicant's invention is radar activated and operates independently of any action of the host vehicle's driver. This

is important because if the driver of the host vehicle is inattentive to the forward driving conditions, the warning light of Wilson will not be activated at all. And for elderly or intoxicated drivers who may have delayed reactions, the warning light of Wilson's patent can only be activated after a possibly significant elapse of time has occurred. **Wilson's patent does not teach us of the need or advantage of eliminating the host vehicle's driver reaction time from the operation of a warning light.**

2. **The flashing warning light of Wilson's invention is not activated under normal braking conditions.** Rather, his patent teaches us about a warning light that is activated only upon panic braking situations – emergencies. Wilson's patent has not recognized or taught us the value of a warning light that informs the driver trailing a host vehicle of normal braking conditions of the forward traffic flow. Indeed, Wilson's warning lights tell us nothing definitive about the speed of the vehicle forward of the host vehicle at all – the warning lights only tell a trailing driver that the host vehicle has applied their brakes as if there were an emergency. **What Wilson's patent has failed to teach us – and what is unobvious – is that there is value in providing information about the deceleration rates of both the host vehicle and the vehicle forward of the host vehicle under normal, non-emergency, braking.** Applicant's invention provides a means to supply a driver trailing the host vehicle with this important information. As an example which points out this important distinction; imagine driving in heavy traffic behind a large truck that obscures the view to the forward road. If that truck is host to the warning light of the invention taught to us by Wilson, then – like prior art brake lights - no information at all is provided about the traffic flow *ahead* of the truck. If, however, that same truck were to have the radar-activated warning lights of applicant's invention, then the trailing driver would see a warning whenever the vehicle forward of the truck decelerates. And, under normal driving conditions this would lead to the trailing driver developing a pattern of warning lights reflecting the normal traffic braking sequence: vehicle forward of truck brakes, truck brakes; vehicle forward of

truck brakes, truck breaks. If that pattern changes, then the trailing driver can be deduce a change in the traffic flow that otherwise could not be gleaned. In an extreme case where a trailing driver observes the light sequence indicating that the vehicle forward of truck braking but no truck braking, then the trailing driver can anticipate a collision. **Wilson's patent teaches us nothing about the value of developing an association between warning light sequence and traffic flow.**

In summary, Wilson's patent teaches us nothing about the two elements most critical to applicant's invention: the value of a warning light operating independently of the **action** of the driver of a host vehicle and the value of **pattern recognition** in warning light sequence under normal (non-emergency) driving conditions.

Conclusion

For all of the above reasons, applicant submits that claim 12 of applicant's invention could not have been anticipated by Iihoshi et al and could not have been taught to us from Wilson's patent, and indeed defines patentability over the prior art. Therefore applicant submits that this application is now in condition for allowance, which action is respectfully solicited.

Very respectfully,

Steve Thorne

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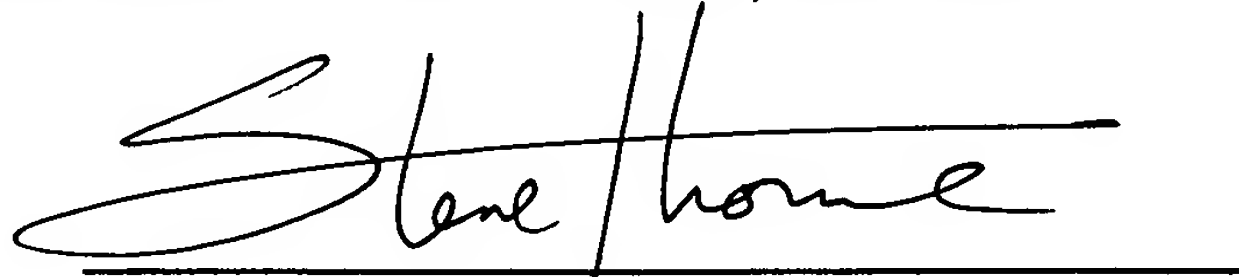
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2005 July 7

A handwritten signature in black ink, appearing to read "Steve Thorne", is written over a horizontal line. The signature is stylized with a large initial "S" and a vertical line through the middle of the name.

Steve Thorne, Applicant